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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,003	10/17/2003	Richard Hammond	ASC-001C1	4396

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EXAMINER
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MUNSON, GENE M

ART UNIT	PAPER NUMBER
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2811

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/688,003

Applicant(s)

R. HAMMOND ET AL

Examiner

G. MUNSON

Group Art Unit

2811

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 2 March 2004, 30 January 2004

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 27-44 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 27-44 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper 3/02/04 1/30/04

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

Office Action Summary

That parent application SN 10/191,006 issued as a patent needs to be inserted in the specification.

Claims 27-38 and 41 are rejected under 35 U.S.C. 112, first paragraph. In claim 27, the specification does not disclose "modulating a free charge carrier density distribution in the surface layer" only "by applying a back-bias voltage to the transistor". Compare present claim 30 and patent claim 1 of the Hammond et al patent No. 6,680,496 that issued from parent application SN 10/191,006. Claim 41 does not appear clearly described in the specification (page 14) to enable any person skilled in the art to make the invention. In response, applicants should point out in the specification the support for "the surface layer comprises tensilely strained silicon".

Claims 27-40 and 42-44 are rejected as double patenting of the non-statutory type over claims of the Hammond et al patent No. 6,680,496. See MPEP 804. Present claims read on the patent claims or a combination of the patent claims and would be double patenting.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(f) he did not himself invent the subject matter sought to be patented.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 27, 28, 30-36, 38, 39, 42 and 43 are rejected under 35 USC 102 as unpatentable as shown by the acknowledged prior art in this application (Figures 1, 2; pages 1-3, 8-11). See Figure 1 with “gate” 110, “source” 120 and “drain” 130. The “back bias voltage” reads on an implicit potential applied to substrate 140 that is necessary for operation.

Claims 27, 28, 30-36, 38, 39, 42 and 43 are rejected under 35 USC 103 as unpatentable over the acknowledged prior art in this application (Figures 1, 2; pages 1-3, 8-11). It would have been obvious to apply a “back bias voltage” to substrate 140 of the transistor of Figure 1 in order to have a ground potential for applied voltages to the gate, source and drain.

Claims 27, 28, 30-35, 37-39 and 41-44 are rejected under 35 USC 102 as unpatentable as shown by Fitzgerald ‘839, of *record* in SN 10/191,006. See Figure 1A with “gate” 113, 116, “source” 118 and “drain” 120. The “back-bias voltage” reads on an implicit potential applied to substrate 108 that is necessary for operation of the transistor. Claim 35 reads on when the transistor is turned off.

Claims 27, 28, 30-36, 38-40, 42 and 43 are rejected under 35 USC 102 as unpatentable as shown by Nakagawa, of *record* in SN 10/191,006. See Figures 1-3 with “gate” 22, “source” 14 and “drain” 16. The “back-bias voltage” reads on an implicit potential applied to substrate 12 that is necessary for operation of the transistor.

Claims 27, 28, 30-36, 38-40, 42 and 43 are rejected under 35 USC 103 as unpatentable over Nakagawa. It would have been obvious to apply a “back-bias voltage” to substrate 12 of Nakagawa (Figures 1-3) in order to have a ground potential for applied voltages to the gate, source and drain.

Claims 27, 28, 30-36, 38-40, 42 and 43 are rejected under 35 USC 102 as unpatentable as shown by Fischer et al, of *record* in SN 10/191,006. See Figure 2 with “gate” 9 and “source”/ “drain” 11. The “back-bias voltage” reads on an implicit potential applied to substrate 1 that is necessary for operation of the transistor.

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Claims 27, 28, 30-36, 38-40, 42 and 43 are rejected under 35 USC 103 as unpatentable over Fischer et al. It would have been obvious to apply a "back-bias voltage" to substrate 1 of Fischer et al (Figure 2) in order to have a ground potential for applied voltages to the gate, source and drain.

Claims 27, 28, 30-35 and 37-44 are rejected under 35 USC 102 as unpatentable as shown by Tezuka, of *record* in SN 10/191,006. See Figures 6-8 with "gate" 54 and "source"/"drain" 51, 52. The "back-bias voltage" reads on the applied voltage to layer 12a or 12b.

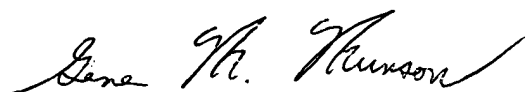
Claims 27, 28, 30-35 and 37-44 are rejected under 35 USC 103 as unpatentable as shown by Tezuka. It would have been obvious to apply a "back-bias voltage" to layer 12a or 12b, as suggested by Tezuka.

The other references are of record in SN 10/191,006.

No claim is allowed.

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07/02/04



**GENE M. MUNSON  
EXAMINER  
GROUP ART UNIT 2834**